

# DSN Antenna Downtime Status and Forecast



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# Antenna Downtime Status and Forecast

## The following downtimes are being studied for 2008 - 2010

- ❑ SPC-60 is requesting additional time for Commercial Power Installation no earlier than July 8, 2008. They are requesting 2 three day blocks or 3 two day blocks on off shift hours.
- ❑ SPC-40 is requesting complex downtime for A Station Power Grid.
  - ❑ Week 22 DOY 153 2200-0200 scheduled
  - ❑ Week 34 DOY 237 2200-0600 proposed
  - ❑ Week 38 DOY 265 2200-0400 proposed
  - ❑ Week 39 DOY 272 2200-0400 proposed
- ❑ DSS-14 Grouting for week 31 in 2008 for 3 - 5 days.
  - ❑ The grouting has been placed in the schedule and all conflicts have been resolved.
- ❑ DSS-14 Grouting has been proposed for week 35 in 2008 for 3 days.
- ❑ DSS-14 Grouting has been proposed for week 44 in 2008 for 3 days.
- ❑ DSS-55 downtime for Paint Repair beginning in June 2008 has been moved to September weeks 36 - 41.
- ❑ DSS-54 downtime for ACQ Aid Installation is scheduled for October, weeks 42 and 43 of 2008.
  - ❑ Due to Cassini critical support, the proposed downtime DOYs would be 287 – 290 and 292 – 294. Will check for TERRA views. Cassini view is 0400-1600 will check on actual time needed.
- ❑ DSS-43 downtime for Life Extension and Depot Level Maintenance starting October 3, 2008 has been moved to start January 5, 2009 and proposed to end April 12, 2009 weeks 2 – 15 which add an extra two weeks to the end time.
- ❑ DSS-63 downtime for Life Extension has been shortened to May 4, through August 2, 2009, weeks 19 - 31.
- ❑ DSS-24 downtime for painting has been proposed for April – May of 2009, weeks 14 - 22. A study is being performed.

# Antenna Downtime Status and Forecast

## The following downtimes are being studied for 2008 - 2010

- ❑ DSS-34 downtime for Azimuth Track Replacement has been proposed for 2010, local summer.
  - ❑ It is suggested to move to October, November of 2009 weeks 41-47.
- ❑ DSS-65 downtime for Life Extension Elevation for October, November of 2009 has been proposed for weeks 31 - 41 in 2010.
- ❑ As a result of the reduction of downtime for DSS-43 & DSS-63 in 2008 & 2009, it is requested to recover that time in 2010, local spring, summer or fall after DSS-14 RTS.
  - ❑ DSS-43 is proposed for August 30 to November 29, 2010 weeks 35-48
  - ❑ DSS-63 is proposed for February 28 to May 29, 2011 weeks 9 -21.
- ❑ DSS-15 downtime for Pintle Bearing has been proposed for May 3, through June 27, 2010, weeks 18 - 25.

# Antenna Downtime Status and Forecast

## Downtime request for 2008

**The following proposals for 14 hour complex downtimes are requested by GDSCC.**

- ❑ Corrective maintenance “G86/G81 Transfer Switch Electrical Maintenance” in May has been changed to NET September 2008.
  - ❑ This was in the schedule for week 22 DOY 147/0830-2230. This downtime will be scheduled no earlier than week 36 and negotiated in the Mid-Range negotiation meetings.
- ❑ Preventative maintenance “G91 2400V Switchgear Electrical Maintenance” in June has been changed to NET September 2008.
  - ❑ This is in the schedule for no earlier than week 38 and will be negotiated in the Mid-Range negotiation meetings.
- ❑ Preventative maintenance “Echo Tie-Line Electrical Maintenance” in September has been changed to NET October 2008.
  - ❑ This is in the schedule for no earlier than week 40 and will be negotiated in the Mid-Range negotiation meetings.
- ❑ Preventative maintenance “Apollo Tie-Line Electrical Maintenance” in October has been changed to NET November 2008.
  - ❑ This is in the schedule for no earlier than week 43 and will be negotiated in the Mid-Range negotiation meetings.
- ❑ Preventative maintenance “SPC-10 Electrical Maintenance” in November.
  - ❑ This is in the schedule for no earlier than week 45 and will be negotiated in the Mid-Range negotiation meetings.

## **Additional time is being requested**

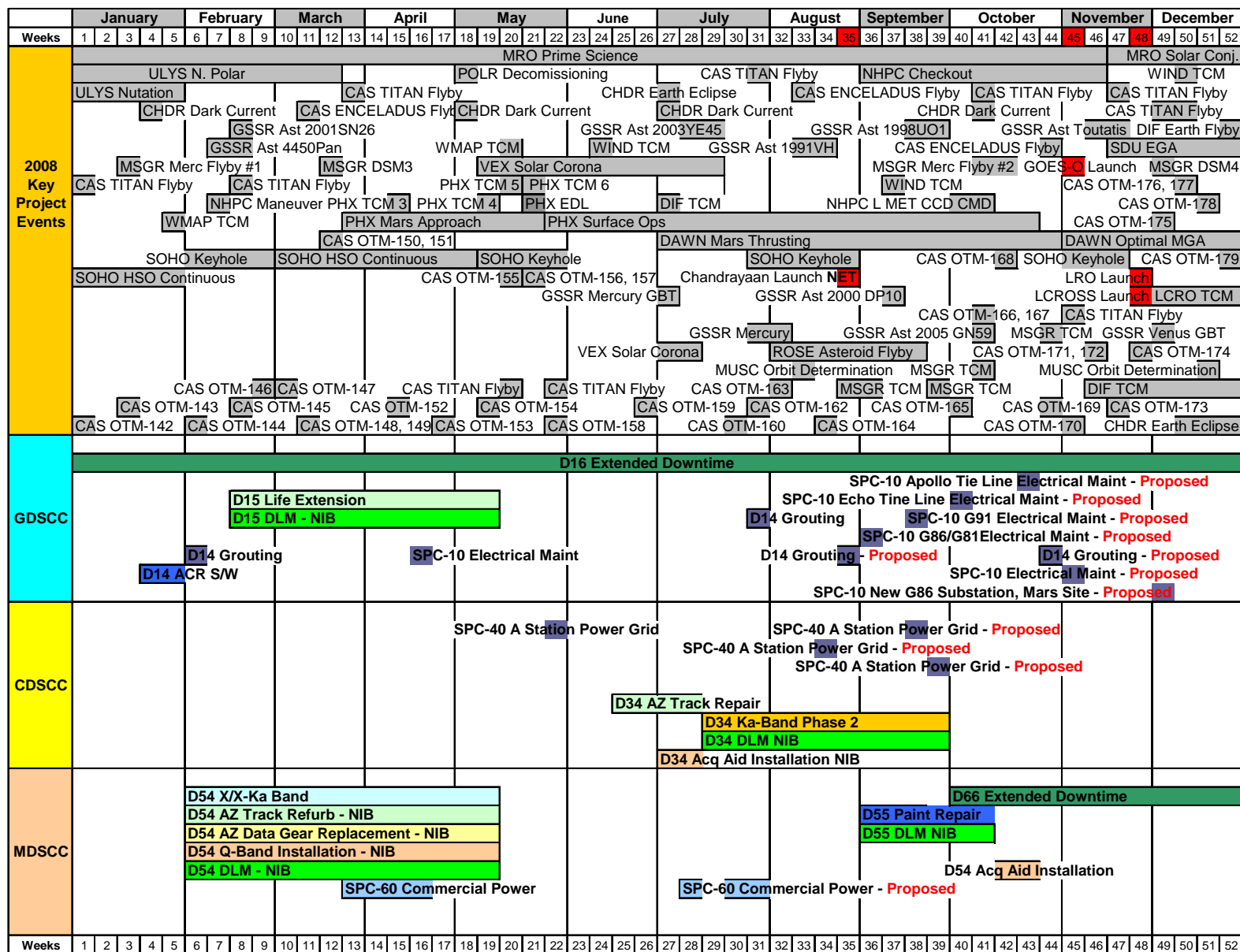
- ❑ Two 8 hour complex downtimes in December 2008 for cutover, final connection and testing of the new G86 Substation, Mars Site.
- ❑ Fourteen 4 hour periods between July 2009 and January 2010 for testing of G86 Substation, Mars Site.

# Antenna Downtime Status and Forecast

**The following proposals for antenna downtimes are requested.**

- ❑ MDSCC Annual Antenna Inspections including Annual Servo Testing at DSS-63, -65, -54 and -55 as follows:
  - ❑ Servo Testing for DSS-55 is scheduled for DOY 192/0600-1400 week 28
  - ❑ Servo Testing for DSS-63 is scheduled for DOY 193/0600-1400 week 28
  - ❑ Servo Testing for DSS-54 is scheduled for DOY 196/0600-1400 week 29
  - ❑ Servo Testing for DSS-65 is scheduled for DOY 199/0600-1400 week 29
  - ❑ Servo Testing for DSS-63 is scheduled for DOY 203/0600-1400 week 20 (will be deleted if week 28 is negotiated)
  - ❑ Antenna Inspection for DSS-63 is scheduled for DOY 154/0600-1400 week 23
  - ❑ Antenna Inspection for DSS-55 is scheduled for DOY 161/0600-1400 week 24
  - ❑ Antenna Inspection for DSS-54 is scheduled for DOY 162/0600-1400 week 24
  - ❑ Antenna Inspection for DSS-65 is scheduled for DOY 163/0600-1400 week 24
- ❑ HEF Transmitter Manifold Installation at DSS-15, -45 and -65 between July, 2008 and June 2009 not to be scheduled concurrently with DSS-15 being scheduled first.

# Antenna Downtime Status and Forecast 2008

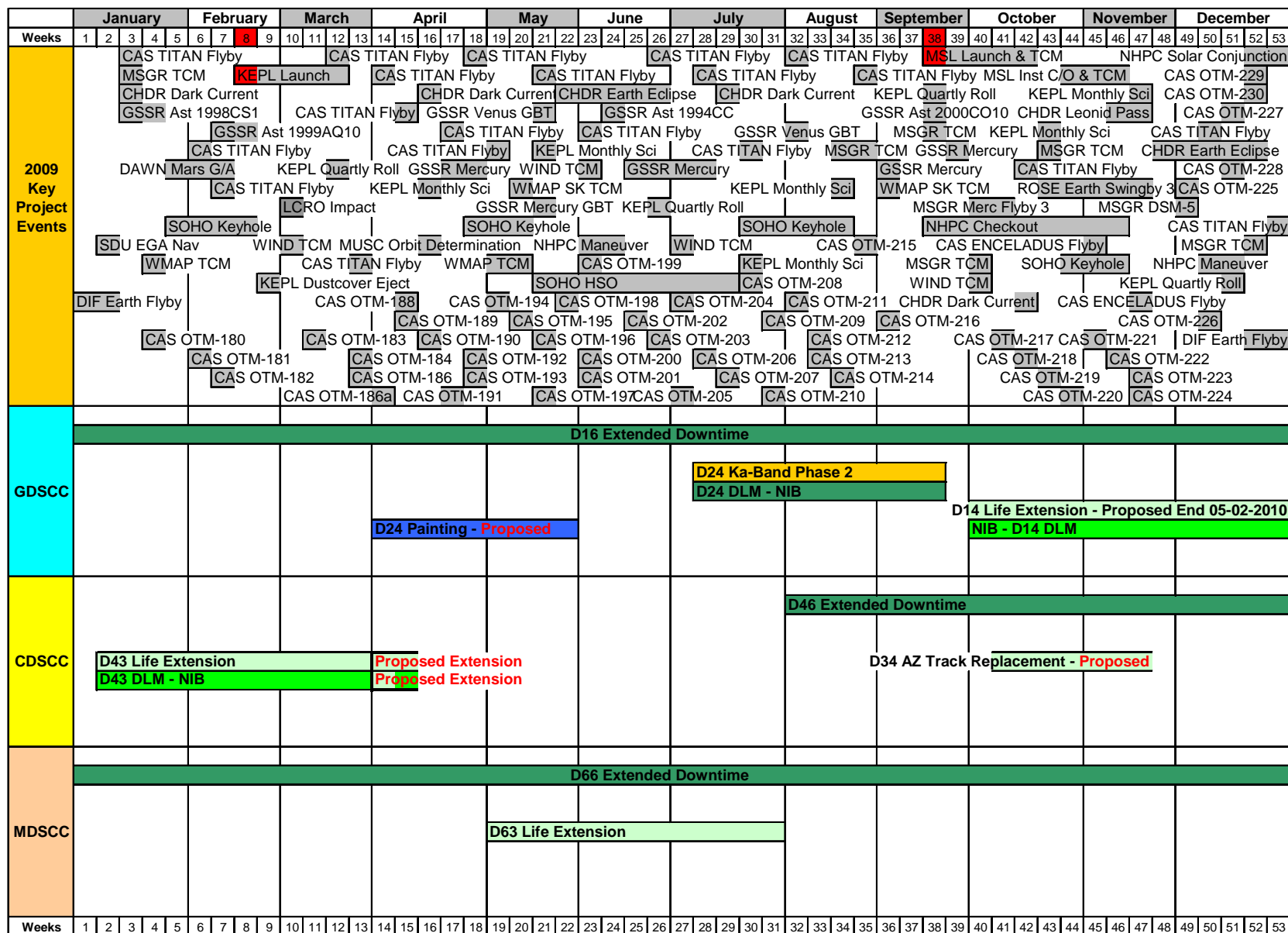


Revised: May 15, 2008

## DSN Major Downtimes by Date 2008

2008							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 54	XX-Ka Band Install	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	AZ Track Refurbishment - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	AZ Data Gear Replacement - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	Q-Band Installation - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	Depot Level Maintenance - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 15	Life Extension	02/18/2008 00:00	05/11/2008 23:59	84	08 - 19	049	132
DSS 15	Depot Level Maintenance - NIB	02/18/2008 00:00	05/11/2008 23:59	84	08 - 19	049	132
SPC 40	A STA Power Grid	06/02/2008 08:00	06/02/2008 12:00	0	23 - 22	154	153
DSS 34	AZ Track Repair	06/17/2008 00:00	07/13/2008 23:59	27	25 - 28	169	195
DSS 34	Acq Aid Installation - NIB	06/30/2008 00:00	07/13/2008 23:59	14	27 - 28	182	195
DSS 34	Ka-Band Phase 2 Install	07/14/2008 00:00	09/29/2008 23:59	77	29 - 39	196	272
DSS 34	Depot Level Maintenance - NIB	07/14/2008 00:00	09/29/2008 23:59	77	29 - 39	196	272
DSS 14	Grouting	07/29/2008 00:00	08/03/2008 23:59	6	31 - 31	211	216
SPC 60	Commercial Power Installation - Proposed	08/08/2008 18:00	08/11/2008 06:00	3	32 - 32	221	223
SPC 60	Commercial Power Installation - Proposed	08/22/2008 18:00	08/25/2008 06:00	3	34 - 34	235	237
SPC 40	A STA Power Grid - Proposed	08/25/2008 08:00	08/25/2008 16:00	0	34 - 34	237	237
DSS 14	Grouting - Proposed	08/27/2008 00:00	08/29/2008 23:59	3	35 - 35	240	242
SPC 60	Commercial Power Installation - Proposed	08/29/2008 18:00	09/01/2008 06:00	3	35 - 35	242	244
DSS 55	Paint Repair	09/01/2008 00:00	10/12/2008 23:59	42	36 - 41	245	286
DSS 55	Depot Level Maintenance - NIB	09/01/2008 00:00	10/12/2008 23:59	42	36 - 41	245	286
SPC 10	G86/G81 Electrical Maintenance	09/01/2008 08:30	09/01/2008 22:30	0	36 - 36	245	245
SPC 10	G91 Electrical Maintenance	09/15/2008 08:30	09/15/2008 22:30	0	38 - 38	259	259
SPC 40	A STA Power Grid - Proposed	09/22/2008 08:00	09/22/2008 14:00	0	39 - 39	266	266
SPC 40	A STA Power Grid - Proposed	09/29/2008 08:00	09/29/2008 14:00	0	40 - 40	273	273
DSS 66	Extended Downtime	09/29/2008 16:00	12/31/2019 23:59	4111	40 - 53	273	365
SPC 10	Echo Tie Line Electrical Maintenance	10/01/2008 08:30	10/01/2008 22:30	0	40 - 40	275	275
DSS 54	Acq Aid Installation	10/13/2008 00:00	10/16/2008 23:59	4	42 - 42	287	290
DSS 54	Acq Aid Installation	10/18/2008 00:00	10/21/2008 23:59	4	42 - 43	292	295
SPC 10	Apollo Tie-Line Electrical Maintenance	10/20/2008 08:30	10/20/2008 22:30	0	43 - 43	294	294
SPC 10	SPC-10 Electrical Maintenance	11/03/2008 08:30	11/03/2008 22:30	0	45 - 45	308	308
DSS 14	Grouting Proposed	11/05/2008 00:00	11/07/2008 11:59	2	45 - 45	310	311

# Antenna Downtime Status and Forecast 2009



Revised: May 15, 2008

## DSN Major Downtimes by Date 2009

2009							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 43	Life Extension	01/05/2009 00:00	03/29/2009 23:59	84	02 - 13	005	088
DSS 43	Depot Level Maintenance – NIB	01/05/2009 00:00	03/29/2009 23:59	84	02 - 13	005	088
DSS 43	Life Extension Addition - <b>Proposed</b>	03/30/2009 00:00	04/12/2009 23:59	14	14 - 15	089	102
DSS 43	Depot Level Maintenance Addition - <b>Proposed</b>	03/30/2009 00:00	04/12/2009 23:59	14	14 - 15	089	102
DSS 24	Painting - <b>Proposed</b>	03/30/2009 00:00	05/31/2009 23:59	63	14 - 22	089	151
DSS 63	Life Extension	05/04/2009 00:00	08/02/2009 23:59	91	19 - 31	124	214
DSS 24	Ka-Band Phase 2 Install	07/06/2009 00:00	09/21/2009 23:59	77	28 - 38	187	263
DSS 24	Depot Level Maintenance - NIB	07/06/2009 00:00	09/21/2009 23:59	77	28 - 38	187	263
DSS 46	Extended Downtime	08/03/2009 16:00	12/31/2019 23:59	3803	32 - 53	215	365
DSS 14	Life Extension	10/03/2009 00:00	03/28/2010 23:59	177	40 - 12	276	087
DSS 14	Depot Level Maintenance - NIB	10/03/2009 00:00	03/28/2010 23:59	177	40 - 12	276	087
DSS 34	AZ Track Replacement - <b>Proposed</b>	10/05/2009 00:00	11/22/2009 23:59	48	41 - 47	278	325

# Antenna Downtime Status and Forecast 2010

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Revised: May 5, 2008

## DSN Major Downtimes by Date 2010

2010							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 25	Ka-Band Uplink Install	03/29/2010 00:00	04/18/2010 23:59	21	13 - 15	088	108
DSS 25	Depot Level Maintenance - NIB	03/29/2010 00:00	04/18/2010 23:59	21	13 - 15	088	108
DSS 14	Life Extension Addition - <b>Proposed</b>	03/29/2010 00:00	05/02/2010 23:59	35	13 - 17	088	122
DSS 14	Depot Level Maintenance Addition - <b>Proposed</b>	03/29/2010 00:00	05/02/2010 23:59	35	13 - 17	088	122
DSS 15	Pintle Bearing - <b>Proposed</b>	05/31/2010 00:00	07/25/2010 23:59	56	22 - 29	151	206
DSS 25	Depot Level Maintenance - NIB	08/02/2010 00:00	08/29/2010 23:59	28	31 - 34	214	241
DSS 65	Life Extension Elevation - <b>Proposed</b>	08/02/2010 00:00	10/04/2010 23:59	63	31 - 39	214	276
DSS 25	Ka-Band Uplink Install	08/02/2010 00:00	08/29/2010 23:59	28	31 - 34	214	241
DSS 43	70m Power and HBA Upgrades - <b>Proposed</b>	08/30/2010 00:00	11/28/2010 11:59	90	35 - 47	242	331
DSS 54	Ka-Band Phase 2 Install - <b>Proposed</b>	10/04/2010 00:00	12/20/2010 23:59	77	40 - 50	277	353

# Antenna Downtime Status and Forecast 2011

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Revised: May 5, 2008

## DSN Major Downtimes by Date 2011

2011							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	70m Power and HBA Upgrades - <b>Proposed</b>	02/28/2011 00:00	05/29/2011 23:59	90	09 - 21	059	148

# Antenna Downtime Status and Forecast

## DSN Resource Implementation Planning Matrix by Subnet

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka Phase 2
			Down	Up	Down	Up	Down	Up	
10	DSS-16	26M	✓	N/A	N/A	N/A	N/A	N/A	N/A
40	DSS-46	26M	✓	✓	N/A	N/A	N/A	N/A	N/A
60	DSS-66	26M	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	09/21/09
40	DSS-34	34B1	✓	✓	✓	✓	✓	N/A	09/29/08
60	DSS-54	34B1	✓	✓	✓	✓	04/15/08	N/A	09/27/10
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	08/01/10	N/A
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
60	DSS-55	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
10	DSS-15	34HEF	✓	N/A	✓	✓	N/A	N/A	N/A
40	DSS-45	34HEF	✓	06/01/08	✓	✓	N/A	N/A	N/A
60	DSS-65	34HEF	✓	06/01/08	✓	✓	N/A	N/A	N/A
10	DSS-14	70M	✓	✓	✓	✓	N/A	N/A	N/A
40	DSS-43	70M	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	N/A
N/A = Capability Not Planned    xx/xx/xx = Capability Date Recently Changed    As of: 02/07/08 ✓ ✓ ✓ = Capability Recently Exists    ✓ = Capability Exists									